Amendments to the Specification:

Please replace paragraph [0002] with the following amended paragraph.

This application is being filed concurrently with related U.S. Patent **Application Nos. 10/829,916, filed April 21, 2004,** ~~applications: Attorney Docket No. 040180-000110US,~~ entitled "Method and Apparatus for Communicating Control Signals"; **10/829,915, filed April 21, 2004,** ~~Attorney Docket No. 040180-000120US,~~ entitled "Method and Apparatus for Communicating A Randomized Signal"; **10/830,174, filed April 21, 2004,** ~~Attorney Docket No. 040180-000140US,~~ entitled "Method and Apparatus for Varying Animal Correction Signals" all of which are hereby incorporated by reference for all purposes.

Please replace paragraph [0008] with the following amended paragraph.

While in many instances a single transmitter will suffice for protecting an area of the **home, in** ~~home. In~~ some instances it is desirable to protect a larger area than can be accommodated with a single unit. In that situation, it can sometimes be difficult to use more than one unit to protect the large area. This is due to the fact that the units transmit the same signal in a spherical pattern. When placed near one another, the signals produced by the transmitters can cancel. When the signals cancel one another, a dead zone is created in which the pet can move freely. This may be the very place that the pet owner wants to keep the pet from entering. As a result, the effective use of two units close to one another which are transmitting the same signal is sometimes difficult to achieve.

Please replace paragraph [0035] with the following amended paragraph.

Fig. 14 illustrates a system for transmitting and receiving an animal control ~~system~~ **signal**, according to one embodiment of the invention.

Please replace paragraph [0054] with the following amended paragraph.

In block ~~530~~ <u>540</u>, the digital message is determined from the carrier wave signal, wherein reception of the carrier wave corresponds to a first digital signal in the digital message and non-reception of the carrier wave corresponds to a second digital signal in the digital message. The second digital signal is the opposite of the first digital signal. Therefore, if the first digital signal is a "1" then the second digital signal is a "0" and vice versa. Once the digital message is determined from the carrier wave signal, then the digital message can be used to decide whether to apply a correction signal **<u>as shown in block 550</u>**, e.g., in the form of a sound or a stimulation signal. According to one example, the digital message can be associated with a specific animal collar. Any animal collar that is programmed with that digital message and receives that digital message would know to apply a correction signal to the pet. Any animal collar not pre-programmed with that digital message and which received that digital message would conclude not to apply the correction signal. Thus, different pets could be controlled by different transmitters -- thus keeping cats away from a sofa that they might scratch, while allowing dogs to sleep at the side of the sofa. As another example, the digital message could be indicative of a level of stimulation to apply. Thus, for a house full of big dogs that have a tendency to both get in the trash can in the kitchen as well as run out the front door, a digital signal sent by the transmitter at the trash can could be equated with a weak correction signal while the digital message sent by the transmitter at the front door could be equated with a strong correction signal (since you would want to prevent the dogs from running out the front door and into the traffic). A table look up function in a processor could be used to determine what correction signal to apply for each digital message received. Furthermore, a combination of these examples could be used.

Please replace paragraph [0065] with the following amended paragraph.

Thus, as shown in block 720, the receiver can detect not only the presence of a signal but can also make a determination that the signal that is being received is of the predetermined frequency that the receiver is configured for. If the signal is detected to be of the predetermined frequency, then the receiving circuit elements can be initiated to receive the transmission packet message. This can be implemented according to one embodiment of the invention by taking a first set of samples of the signal at multiple intervals during a first time period corresponding to at least one cycle at the predetermined frequency, as shown in block 730. Then, this first set of samples can be used to calculate a characteristic of the signal for the first cycle, as shown in block 740. Then, a second set of samples of the signal can be taken at multiple intervals during a subsequent time period corresponding to at least one cycle at the frequency, **as shown in block 750**. In block 755, the second set of samples is utilized to calculate the characteristic of the signal during the second cycle, for example. The calculated characteristic of the first time period (e.g., cycle #1) can be compared with the calculated characteristic of the subsequent time period (e.g., cycle #2) so as to determine whether the first cycle and the second cycle of the signal have the same value and thus were sent at the predetermined frequency, **as shown in block 760**. If so, the digital message embodied in the transmission packet can be determined from the signal, as shown in block 770. Once the digital message is determined, it can be used to trigger application of the correction signal that is transmitted to the animal, as shown in block 780.

Please replace paragraph [0071] with the following amended paragraph.

Figs. 11a and 11b illustrate a transmission scheme according to flowchart 1100. In block 1104, a control signal is generated for transmission to an animal control receiver, wherein the control signal is generated for transmission within a control signal window and wherein the control signal window is longer than the control signal. In block 1108, a first point within the control signal window is determined from which to begin transmission of the control

signal. The first point is selected so as to still allow for transmission of the control signal packet within the control signal window. In block 1112, transmission of the control signal at the initiation point is initiated. In block 1116, the control signal is generated for transmission to the animal control receiver within a second control signal window having the same period as the first control signal window. A second point in time or initiation point is determined for the second control signal window from which to begin transmission of the control signal, as shown in block 1120. The second initiation point allows for the transmission of the control signal packet within the second control signal window. Then, the transmission of the control signal can be initiated again starting at the second initiation point, as shown in block 1124. **In block 1128, this** ~~This~~ process can be repeated by transmitting the control signal packet in successive control signal windows of the same period while varying the initiation of transmission of the control signal packet within successive control signal windows.

Please replace paragraph [0074] with the following amended paragraph.

According to one correction signal routine, a series of correction signals can be applied to the animal for every correction signal window in which the control signal packet is received. The initial magnitude of the correction signal that is applied to the animal can be determined in one example by determining the strength of the received signal. Thus, the strength of the signal can be used to indicate the relative location of the animal within the avoidance zone, i.e., a strong signal indicates the animal is closer to the transmitter than would a weak signal. Furthermore, according to the routine shown in block 1232, ~~a~~ each subsequent correction signal that is applied to the animal during its time inside the avoidance zone is applied with a greater intensity relative to the previous correction signal -- up to a predetermined maximum intensity. After a predetermined time at the maximum intensity, the unit would shut down. Similarly, block 1236 illustrates that after a period of time in which the animal is not removed from the zone, the time intervals between correction signals could be randomized. As noted earlier, a collar assembly can be used to hold the receiver and apply the correction signal in the form of a sound or an electrical stimulation, as shown in block 1240.

Please replace paragraph [0075] with the following amended paragraph.

Fig. 14 shows a transmitter/receiver system to implement the method of Figs. 13a and 13b, according to one embodiment of the invention. Namely, Fig. 14 illustrates a system 1400 of transmission system 1410 and receiving system 1450. The transmission system in this example is shown as having a memory 1414 for storing a control signal for transmission to an animal control receiver. The memory could take a variety of forms. It could be a memory chip programmed with the information. Alternatively, it could be as simple as a series of switches such as BCD switches configured to store an 8 bit message, for example. This would allow the transmission system to be configured to a particular message depending on how the pet owner wanted to use the transmitter -- for example, for a cat, a little dog, a big dog, etc. Fig. 14 also shows a transmission initiation circuit for varying the initiation point for transmitting a control signal within a control signal window. In Fig. 14, the processor 1418 can be configured to select and vary the initiation points within successive windows. For example, according to one embodiment, the processor can be configured with a randomization feature. Fig. 14 also shows a transmitter **1420** coupled with the memory and coupled with the processor. The transmitter can be configured to transmit the control signal stored by the memory as part of a transmission packet within successive control signal windows at varying points of initiation within successive control signal windows. As explained above, the processor can be further configured to vary the initiation point by either randomizing the initiation point or applying a predetermined sequence of initiation points.

Please replace paragraph [0079] with the following amended paragraph.

The receiving method can be implemented according to the example shown in Fig. 16 and flowchart 1600. In block **1610** ~~1600~~ a receiver receives an animal control signal from a transmitter. The animal control signal is received without the receiver transmitting a signal to indicate to the transmitter the presence of the animal in an avoidance (or target) zone, as shown in block 1610. The receiver can be configured to store an identifier in its memory**, as shown in block 1620**. The identifier is used to identify the animal as one of many animals in a

household, for example. A processor is provided to and configured to initiate a routine for application of the correction signal to the animal if the animal control signal received from the transmitter matches the identifier, as shown in block 1630. Furthermore, a correction signal can be generated for use by the correction routine, in block 1640.

Please replace paragraph [0080] with the following amended paragraph.

Fig. 17 illustrates a system for implementing the method described in Figs. 15 and 16. Namely, Fig. 17 shows system 1700 having a transmission system ~~1700~~ **1710**. The example shows a processor 1720 coupled with memory 1730 and transmitter circuit 1740. The memory can be a memory chip or a series of switches capable of being configured to store a message. Similarly, the processor can be configured to implement the transmission method illustrated in Fig. 15. The receiver system 1750 is shown as having receiver 1760 and memory 1770 as well as processor 1780 and correction signal generators 1790 and 1795. Again, the memory can take a form similar to that described for the transmitter. Also, the processor can essentially be configured to implement the method described in Fig. 16.

Please replace paragraph [0084] with the following amended paragraph.

Figs. 18a and 18b illustrate an example of a method of randomizing correction signals with a receiver assembly. In block 1804 of flowchart 1800, a transmitted signal is detected with a detector indicating that the detector is located within a first zone, such as an avoidance zone. In response, a first sequence of correction signals is applied for controlling an animal in block 1808. A determination is made as to whether the animal has been stimulated but not moved from the zone, in block 1812. As noted above, a time period can be measured from when the first stimulation in the sequence of stimulation signals was applied to the animal. Thus, as shown in block 1816, the receiver assembly can wait a period of time after the application of the first sequence of control signals. If the animal has not left the avoidance zone and a sufficient period of time has elapsed, a second sequence of correction signals can be applied to the animal**, as shown in block 1820**. The second sequence will be different from the first

sequence so as to encourage the animal to leave the avoidance zone in view of the fact that the animal has apparently become accustomed to the first sequence. Thus, block 1824 shows that the receiver system can randomly select the time intervals between correction signals in the second sequence of correction signals. Furthermore, the receiver could also be configured to randomly select a signal magnitude for the correction signal in the second sequence of correction signals, as shown by block 1828.